DOCUMENT RESUME

ED 064 689 CS 000 064

TITLE	The Achievement of Disabled Readers (1969-71 School Years) Based on Comparison of Pretest and Posttest Scores.
INSTITUTION	Northwest Multi-Service Educational Center, Valparaiso, Ind.
SPONS AGENCY	Office of Education (DHEW), Washington, D.C.
PUB DATE	31 Aug 71
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DESCRIPTORS	*Achievement Gains; *Basic Reading; Reading; *Reading Achievement; *Reading Diagnosis; *Retarded Readers

ABSTRACT

The objective of this project was to examine the achievement scores of disabled readers. Raw scores of pretest and posttest of the same pupil were computed in terms of percent gain or loss, and a second method shows the ratios of grade levels and instructional reading levels on pretest and posttest of the same pupil. The pupils from 32 public and nonpublic school corporations were prepared for a random sampling of 752 pupils who had been pretested earlier. From these schools the diagnosticians posttested 118 pupils. Conclusions from the data are: (1) of the 114 usable posttest pupils, 111 pupils showed gain and only three showed a loss (the failure pattern has been interrupted in over 90 percent of the cases; (2) the average case gained one and one-half years of reading growth in twelve months of elapsed time; (3) by grouping the cases into assigned grade level at the time of posttest, the data indicates good growth within each grouping; (4) reading among disabled readers is improving throughout Northwest Indiana Schools. (Author)

ED 064689

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EDUCATION & WELFARE
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THE ACHIEVEMENT OF DISABLED READERS (1969-71 SCHOOL YEARS) BASED ON COMPARISON OF PRETEST AND POSTTEST SCORES.

NORTHWEST MULTI-SERVICE EDUCATIONAL CENTER

(serving school corporations, Public and Non-Public, which affiliated with the NORTHWEST INDIANA ELEMENTARY AND SECONDARY SCHOOL COOPERATIVE.)

Operational Grant Project OE 67-2793
Grant Award Revision Number Seven
Public Law 89-10, ESEA Title III

The work presented or reported herein was performed pursuant to Award Grants, (October 13, 1970 - August 31, 1971), from the U.S. Office of Education, Department of Health, Education and Welfare.

CS 000 064

Acknowledgement

The Diagnostic staff which gathered the posttest data included Joanne Maiers, Charles Rank, Fred Rossmanith, Mildred Swihart, Blayne Gonsiorowski Winter, Serge Wilk and Nancy Worch.

The statistical aides who summarized the data were Nancy Swihart and Serge Wilk with Leota Weimer, Secretary. Also, since diagnosticians did most of the work at the school building, the data could not have been gathered without the assistance of school personnel. Superintendents of Schools, building Principals, teachers and secretaries were most helpful.

Wayne E. Swihart, Project Director

August 31, 1971

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OE 4581 (11-68)

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
OFFICE OF EDUCATION
WASHINGTON D.C. 20202

BUDGET BUREAU NO. 81-R068
APPROVAL EXPIRES 6/30/68

I. ESEA TITLE III STATISTICAL DATA

Elementary and Secondary Education Act of 1965 (P.L. 89-10)

THIS SPACE FOR U.S.O.E. USE ONLY →	PROJECT NUMBER	STATE CODE	COUNTY CODE	REGION CODE	STATE ALLOTMENT

SECTION A - PROJECT INFORMATION

1. REASON FOR SUBMISSION OF THIS FORM (Check one)

A ☐ INITIAL APPLICATION FOR TITLE III GRANT OR RESUBMISSION
B ☐ APPLICATION FOR CONTINUATION GRANT
C ☒ END OF BUDGET PERIOD REPORT

2. IN ALL CASES EXCEPT INITIAL APPLICATION, GIVE OE ASSIGNED PROJECT NUMBER

OE 67-2793

3. MAJOR DESCRIPTION OF PROJECT: (Check one only)

A ☒ INNOVATIVE C ☐ ADAPTIVE
B ☐ EXEMPLARY

4. TYPE(S) OF ACTIVITY (Check one or more)

A ☐ PLANNING OF PROGRAM
B ☐ PLANNING OF CONSTRUCTION
C ☐ CONDUCTING PILOT ACTIVITIES
D ☒ OPERATION OF PROGRAM
E ☐ CONSTRUCTING
F ☐ REMODELING

5. PROJECT TITLE (5 Words or Less)

NORTHWEST MULTI-SERVICE EDUCATIONAL CENTER

6. BRIEFLY SUMMARIZE THE PURPOSE OF THE PROPOSED PROJECT AND GIVE THE ITEM NUMBER OF THE AREA OF MAJOR EMPHASIS AS LISTED IN SEC. 303, P.L. 89-10. (See instructions)

Unexpended funds ($5000.) from Project OE 67-2793 have been used to retest disabled readers. Achievement has been measured by means of a comparison of pretests and postests.

ITEM NUMBER Sec. 303, item 1

7. NAME OF APPLICANT (Local Education Agency)	8. ADDRESS (Number, Street, City, State, Zip Code)	
Valparaiso Community Schools	405 North Campbell Street Valparaiso, Indiana 46383	
9. NAME OF COUNTY Northern Lake ---------- South Lake, Newton, Jasper, Pulaski, Porter, Starke, and LaPorte Counties ------	10. CONGRESSIONAL DISTRICT Indiana First District Indiana Second District	
11. NAME OF PROJECT DIRECTOR Wayne E. Swihart	12. ADDRESS (Number, Street, City, State, Zip Code) Northwest Educational Center P.O. Box 295 Valparaiso, Indiana 46383	PHONE NUMBER (Home) 462-1279 (Office) 462-5111 AREA CODE 219
13. NAME OF PERSON AUTHORIZED TO RECEIVE GRANT (Please type) R. James Risk	14. ADDRESS (Number, Street, City, State, Zip Code) Valparaiso Community Schools 405 North Campbell Street Valparaiso, Indiana 46383	PHONE NUMBER 462-5157 AREA CODE 219

15. POSITION OR TITLE

Superintendent of Schools

SIGNATURE OF PERSON AUTHORIZED TO RECEIVE GRANT

R. James Risk

DATE SUBMITTED

August 31, 1971

October 13, 1970

Dr. William Hinze
4th Floor, Donahoe, Bldg.
400 Sixth Street, S.W.
Washington, D.C. 20202

Dear Dr. Hinze,

Subject: Unexpended Funds From Project OE 67-2793.

It is the intent of the Northwest Educational Center to use the unexpended funds from the last award grant. Work will start as soon as approval is received and the work will be completed and reported by August 31, 1971.

The amount of unexpended funds is estimated at $5,000. This money will be used to retest disabled readers so that achievement may be measured. The attached budget gives the accounting distribution.

Sincerely yours,

Wayne E. Swihart

Wayne B. Swihart, Project Director
Northwest Educational Center

R James Risk

R. James Risk, Superintendent
Valparaiso Community Schools

NORTHWEST MULTI-SERVICE EDUCATIONAL CENTER
P.O. Box 295, Valparaiso, Indiana 46383
Dial 219 - 462-8580

B U D G E T for OE 67-2793
(Award Revision no. 7)
Work to be completed by August 31, 1971.

A C C O U N T			
200 A	DIAGNOSTICIANS	50 days @ $40.	$2,000.
	RESEARCH COORDINATOR	32 days @ 65.	2,080.
200 B	SECRETARY (part-time)		400.
200 C	MATERIALS, paper & supplies		100.
200 D	TRAVEL		300.
200 E	TELEPHONE		120.
			$5,000.

Wayne E. Swihart, Project Director

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DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D. C. 20202

NOTIFICATION OF GRANT AWARD

(Single Signature)

VENDOR NUMBER
405132

4.

NAME AND ADDRESS OF INSTITUTION (No., Street, City, State, and Zip Code)

Valparaiso Community Schools
Administration Building
405 North Campbell Street
Valparaiso, Indiana 46383

2. GRANT NUMBER
OEG-3-7-672793-2880(056)

3. PROJECT NUMBER
67-2793

4. AMOUNT
$ No Change

5. PERIOD OF GRANT (Month, Day, Year)

FROM	THROUGH
As Extended	8/31/71

MAKE CHECKS PAYABLE TO:

7. GRANT AWARD IS (Check one)
A. ☐ NEW B. ☒ REVISED # 7

PROPOSAL TITLE

"Northwest Multi-Service Education Center"

SCOPE OF WORK AND/OR SPECIAL CONDITIONS

a. The Grantee's Final Expenditure Report dated 12-1-70 for the budget period June 13, 1969 through August 31, 1970 is incorporated herein by reference only.

b. This Grant revision covers the final budget period of this Project and extends this Grant, OEG-3-7-672793-2880(056), originally awarded on June 30, 1967 through August 31, 1971. The Grantee has authority to expend funds, not to exceed $5,000.00, awarded for activities of the previous budget period and not expended as of August 31, 1970. The expenditure of these funds is for the purpose specified in the Grantee's letter dated October 13, 1970.

c. No additional funds are appropriated or obligated for this Grant extension.

d. The total cumulative expenditures authorized for this Grant shall not exceed $717,852.87.

e. All other terms, conditions and/or other provisions of the Grant, as revised shall remain in full force during the Grant extension period.

GRANT AUTHORITY

Public Law 89-10 Title III Appr. 0279 C.A.N. 7210269

APPROVED

NAME OF GRANTS OFFICER (Please type)

John T. Hazard Region V, Chicago, Illinois

12. DATE
DEC 8 1970

SIGNATURE OF AUTHORIZED GOVERNMENT OFFICIAL

John T. Hazard

ACCOUNTING DATA. (Office of Education Program offices will complete items marked with an asterisk)

BAC. NO. (2)	F Y* (3)	BATCH NO. (4-7)	COMMON ACCOUNTING NUMBER * (8-15)	EFF. DATE (16-18)	OBLIGATION NUMBER * (19-33)	TRANS CODE (34-36)	AMOUNT (Dollars & Cents) * (37-48)	REG. SYM.* (49)	OBJECT CLASS* (50-53)	VENDOR NUMBER* (54-65)

VOUCHER LINE NUMBER (66-71)	GOVT. NON GOVT. (72)	PROGRAM CODES CI/NON-SCI (73-74)	DAL PAY * (75-76)	CNTRL FUND (77)	REC COUNT (78-80)	APPROPRIATION SYMBOL *	ALLOTMENT NUMBER	PO NUMBER

FORM 5232, 11/68 7 REPLACES OE FORM 5000, 12/66 AND 5/68, WHICH ARE OBSOLETE

NORTHWEST MULTI-SERVICE EDUCATIONAL CENTER
P.O. Box 295, Valparaiso, Indiana 46383
Dial 219 - 462-8580

e. Cooperative Membership	Number of Pupils Posttested
JASPER COUNTY	
Kankakee Valley School Corporation	3
LAKE COUNTY	
Crown Point Community School Corporation	6
East Chicago, School City	9
East Gary, School City	3
Gary, School City	-
Griffith Public Schools	3
Hammond School City	3
Hanover Community School Corporation	3
Highland, School Town	3
Hobart City Schools	6
Hobart Township Schools	3
Lake Central School Corporation	3
Lake Ridge Schools	3
Munster Public Schools	-
Ross Township School Corporation	3
Tri-Creek School Corporation	3
Whiting School City	3
LAPORTE COUNTY	
Clinton-Hanna-Noble Consolidated School Dist.	3
LaPorte Community Schools	-
LaPorte County Schools	3
Michigan City Area Schools	9
New Prairie United School Corporation	3
NEWTON COUNTY	
North Newton School Corporation	3
PORTER COUNTY	
Duneland School Corporation	3
Portage Township Schools	3
Porter County Schools	4
Valparaiso Community Schools	6
PULASKI COUNTY	
Eastern Pulaski Community School Corporation	3
West Central School Corporation	3
STARKE COUNTY	
Knox Community Schools	3
North Judson-San Pierre School Corporation	3
Oregon-Davis, Multiple School District	3
NON-PUBLIC	
Catholic Schools	3
Christian Schools	3
Lutheran Schools	3
TOTAL	118

NORTHWEST MULTI-SERVICE EDUCATIONAL CENTER
P.O. Box 295, Valparaiso, Indiana 46383
Dial 219 - 462-8580

II. Abstract of ESEA Title III Project (OE 67-2793, Grant Award Revision number seven). "The Achievement of Disabled Readers (1969-71 school years) Based on a Comparison of Pretest and Posttest Scores".

1. The objective of this project has been to examine the achievement scores of disabled readers. Raw scores of pretest and posttest of the same pupil were computed in terms of percent gain or loss, and a second method shows the ratios of grade levels and instructional reading levels on pretest and posttest of the same pupil.

2. Project Implementation: The Grant Award Document in the amount of $5,000.00 was received on December 4, 1970 and specified a completion date of August 31, 1971. The pupils from 32 public and non-public school corporations were prepared for a random sampling of 752 pupils who had been pretested earlier. From these schools the diagnosticians posttested 118 pupils.

3. Conclusions from the data are -- (a) of the 114 usable posttest pupils, 111 pupils showed gain and only 3 showed a loss. The failure pattern has been interrupted in over 90 percent of the cases. (b) the average case gained one and one-half years of reading growth in twelve months of elapsed time. (c) by grouping the cases into assigned grade level at the time of posttest, the data indicates good growth within each grouping. (d) reading among disabled readers is improving throughout Northwest Indiana Schools.

Wayne B. Swihart, Project Director

August 31, 1971

III. Narrative Report

a. Procedure for Random Sampling of Disabled Readers.

In late December, 1970, the Project Director called together six reading diagnosticians. These people had been trained earlier with project funds from 1967-69 or had been employed in the project during 1969-70. They were skilled in giving the pretests and now would assist with the posttest programs.

A posttest program had been used to measure the achievement of 98 pupils randomly selected during the school year, 1968-69. The procedures and instruments used in that posttest program were reviewed and after some minor revisions they were used in the 1970-71 posttest program.

The diagnosticians went to the schools where the selected pupils were enrolled and administered the posttests. The paragraphs which follow will give a detailed description of this process.

b. Posttesting Program to Assess Reading Achievement.

To evaluate the achievement of disabled readers, it was decided that a retest of a number of previously diagnosed students would offer a quantitative assessment of their progress in reading. The students randomly selected for the retesting had been pretested at least eight months previously, and most considerably longer, during the 1969-70 school year (September - May). This would allow the schools nearly one school year, or preferably longer, to provide for the student's reading needs as stated by the diagnostic reports. By selecting the students randomly from thirty-two (Public and Non-Public) corporations, a variety of ages, grade levels, types of reading problems, and methods of instruction would be represented.

One hundred eighteen students were selected for posttest and one hundred fourteen were usable. The time lapse between the original diagnosis and the posttest ranged from eight to nineteen months. The grade levels of the students ranged from 2nd through 8th grade at the time of posttest. Some of the students had received reading instruction in a

remedial program, others had been taught in the regular classroom. The posttest diagnostic battery consists,in part, of informal tests. The Informal Word Recognition Test assesses a student's sight vocabulary and word analysis skills. The Informal Reading Inventory is used to evaluate various types of comprehension abilities, to determine word recognition skills in context, and to set the independent, the instructional, and the frustration reading levels. Although other tests are usually given during the diagnostic examination, these above mentioned tests are among the most functional.

Informal tests, by their very nature, are not as refined or quantifiable as standardized tests. As their value lies in the freedom they offer the examiner to make calculated observations of a student's performance, their use in a retest situation presents certain problems. The tests are not refined enough to quantitatively show small amounts of gain or loss. Some adjustments were made before these informal measures could be used effectively in a posttest situation.

DATA SUMMARY 1: Sample Pupil Profile.

	Pretest					Posttest				+ - Results		
	LEVELS	Word Recognition			ave. comp.	Word Recognition			ave. comp.	1 S.V.	2 W.A.	3 A.C.
		flash	un-timed	% con-text		flash	un-timed	% con-text				
I-1												
I												
I+1												
I+2												
I+3												
I+4												
I+5												
and higher												

The preceding DATA SUMMARY 1: Sample Pupil Profile, illustrates the type of information gained from the Informal Word Recognition Test and the Informal Reading Inventory.

The 'Flash' aspect of Word Recognition consists of the student's instant recognition of isolated words when they are presented in a tachistoscopic manner. The 'Untimed' exposure involves the student's ability to use configuration, phonics, and structural analysis skills to analyze the words missed. The 'percent of accuracy' in context refers to the child's success in reading various passages orally. Both oral comprehension (the degree of understanding the student demonstrates on short selections which he reads aloud) and silent comprehension (assessment of passages read silently) averaged together give an 'Average Comprehension score.' The scores are reported in terms of percent of accuracy.

For the retest, the students were given the same form of the Word Recognition Test and the same form of the Informal Reading Inventory as they had been given during their original diagnosis. It was felt that there would be no significant carry-over from the pretest, as there had been a time lapse of at least 8 months.

To make the results of the informal measures more quantifiable, the following procedures were followed:

1. On the basis of the pretest scores, the diagnostician substantiated the student's previously determined instructional level (I), noted the scores one level below (I-1), the instructional level, and as many levels above (I+1 through + 5) the instructional level as were given.

2. The raw scores (percents) from each of these levels were recorded under the proper category, i.e. flash, untimed, percent of accuracy in context and comprehension. (see Data Summary 2.)

DATA SUMMARY 2: Recording Raw Scores.

	LEVELS	Pretest Word Recognition			Ave. Comp.
		flash	un-timed	% con-text	
I-1	1	96	100	99	90
I	2	88	96	95	75
I+1	3	72	76	90	50
I+2	4	56	68		
I+3					
I+4					
I+5					
and higher					

3. The same levels, I-1, I, I+1, were administered to the students in the posttest until the ceiling (frustration level) was reached. The raw scores (percents) were recorded in identical categories.

DATA SUMMARY 3: Recording Posttest Raw Scores.

	LEVELS	Pretest				Posttest			
		Word Recognition				Word Recognition			
		flash	un-timed	% con-text	ave. comp.	flash	un-timed	% con-text	ave. comp.
I-1	1	96	100	99	90	100	100	100	100
I	2	88	96	95	75	100	100	100	100
I+1	3	72	76	90	50	96	100	97	90
I+2	4	56	68			84	92	94	77
I+3	5					76	88	89	52
I+4						56	72		
I+5									
and higher									

4. The difference between the percentages of the pretest and posttests were then determined and recorded under "Results". (see below)

DATA SUMMARY 4:

	+ Results -	
S.[1]V.	W.[2]A.	A.[3]C.
4	0	10
12	4	25
24	24	40
28	24	

5. The total gain, or loss, for each area (sight vocabulary, word analysis, and comprehension) was then obtained.

Total gain in s.v.	68		
Total gain in W.A.		52	
Total gain in A.C.			75

6. The totals from each area were summed to produce a grand total of gain or loss.

SUM OF TOTALS	195

7. This grand total was then divided by 3 (because three reading areas were being considered) to obtain the "Percent of Reading Progress".

SUM OF TOTALS	195	
Divided by 3		
% of Reading Progress		65

The composite of pretest and posttest scores would look as illustrated in Data Summary 5 on the following page.

DATA SUMMARY 5: COMPOSITE OF ALL SCORES.

Pretest						Posttest				Results + -		
	Word Recognition				Word Recognition						
	LEVELS	flash	un-timed	% context	ave. comp.	flash	un-timed	% context	ave. comp.	S.V.[1]	W.A.[2]	A.C.[3]
I-1	1	96	100	99	90	100	100	100	100	4	0	10
I	2	88	96	95	75	100	100	100	100	12	4	25
I+1	3	72	76	90	50	96	100	97	90	24	24	40
I+2	4	56	68			84	92	94	77	28	24	
I+3	5					76	88	89	52			
I+4	6					56	72					

Total gain in S.V.	68		
Total gain in W.A.		52	
Total gain in A.C.			75
Sum of totals			195
% of Reading Progress			65

The three areas -- sight vocabulary, word analysis, and comprehension --- were chosen because they represent three fundamental aspects of the reading process. As indicated, the grand total of gain (or loss) from all three areas was divided by three to obtain the "Percent of Reading Progress". It was felt that this would represent a fair estimate of a student's overall gain in reading. Presumably, some students may have made large gains in one area, such as sight vocabulary, but little gain, or perhaps even loss, in the other two areas. By averaging the totals of the three areas, each area is equally represented. The result, "Percent of Reading Progress", is more indicative of general achievement in reading than scores in any one area individually.

Table 1 lists the results obtained from 114 cases, along with the percent of increase in the three reading areas of the overall percent of reading gain.

An increase of 'x' number of percentage points in one area does not represent a corresponding increase in reading levels or instructional ability. The increased percentages are an arbitrary indication of progress, as it is difficult to define the necessary increase in percentages necessary to move a student from one instructional level to another.

c. Achievement based on gain or loss from Pretest to Posttest Scores.

The enclosed list shows the amount of gain, or loss, in sight vocabulary, (flash)/ word analysis, (untimed)/ comprehension, and total reading for each student retested. The results indicate that most students made considerable gain in all areas. The greatest gain came in Sight Vocabulary where the mean improvement for the 114 students was a percentage of 50. The mean gain for both Word Analysis and Comprehension was 37, the average percent of gain in overall reading was 42.

Table 1: INDIVIDUAL SCORES FOR 114 POSTTEST CASES SELECTED AT RANDOM

Sight Vocabulary	Word Analysis	Average Comprehension	Percent Of Gain
12	12	21	15
75	48	27	50
4	4	26	11
86	98	25	70
73	51	75	66
80	20	2	34
50	13	63	42
24	36	28	29
57	51	50	53
48	32	29	36
56	48	10	38
21	24	20	22
64	66	30	53
65	83	--	49
108	124	95	109
62	44	90	65
72	60	72	68
48	28	47	41
44	20	42	35
40	24	-14	17
20	44	42	35
49	40	50	46
129	108	52	96
76	40	33	50
58	76	18	51
99	84	42	75
44	28	31	34
60	68	32	53

Sight Vocabulary	Word Analysis	Average Comprehension	Percent Of Gain
16	8	35	20
68	36	-56	16
4	8	-20	- 3
96	48	95	80
52	28	22	34
96	70	17	61
68	36	57	54
44	20	17	27
86	52	109	82
32	24	32	29
24	8	30	21
84	12	25	40
58	60	43	54
53	73	102	76
50	71	60	60
36	22	- 7	17
112	40	33	62
92	68	32	64
- 16	10	53	16
48	0	5	18
82	57	50	63
68	32	51	50
64	32	81	59
97	50	37	61
65	57	2	41
91	24	54	56
52	32	65	50
64	36	- 3	32
64	8	42	38

Sight Vocabulary	Word Analysis	Average Comprehension	Percent Of Gain
56	16	36	36
6	20	67	31
98	93	64	85
49	43	105	66
30	0	0	10
32	16	43	30
48	36	7	30
4	4	8	5
44	40	16	33
80	20	64	55
40	48	62	50
56	16	45	39
15	0	24	13
42	16	37	32
78	46	27	32
60	32	43	45
-12	16	-10	- 2
36	36	-14	19
58	62	28	49
36	33	20	30
13	48	32	31
24	- 4	-44	- 8
49	56	108	71
41	53	55	50
32	60	24	39
19	10	60	30
104	52	66	74
0	20	6	9
54	20	15	30
55	63	0	39

Sight Vocabulary	Word Analysis	Average Comprehension	Percent Of Gain
29	22	36	29
51	57	50	53
1	5	94	33
100	64	15	60
28	16	6	17
36	20	32	29
53	29	76	53
30	37	30	32
60	60	70	63
4	24	47	25
24	24	51	33
16	0	12	9
56	48	43	49
61	46	137	81
49	36	40	42
30	26	- 7	16
39	57	68	55
23	9	54	29
- 8	24	40	19
68	76	56	67
36	28	29	31
58	29	16	34
96	30	80	69
36	30	10	25
40	36	72	49
28	8	- 1	12
81	59	20	53
TOTALS (114) CASES 5746	4267	4264	4739
MEANS 50.40	37.43	37.40	41.57

d. Achievement Based on the Ratios of Assigned Grade and Reading Levels at the Time of Pretest and Posttest.

A second method of analyzing the retest data was employed. It was apparent that ratios could be constructed when both the pretest and posttest grade level placement and achievements were known. It was decided that the child's instructional level as determined by the Informal Reading Inventory at both the pretest and posttest sessions best reflects his actual achievement. It is common knowledge that standardized achievement tests reflect a "peak" performance and more nearly represent the student's frustration level. By using the instructional levels from the Informal Reading Inventory, the student's daily performance was taken into consideration. It was agreed that the student who was at the readiness level in visual discrimination (displays the inability to learn and retain a sight vocabulary), must be considered a "non-reader". In this case his achievement was assigned the value zero (0). When daily performance was at either the primer or preprimer level, it was considered equivalent to one-half year's progress (.5 for purpose of ratios). For the vast majority of cases who scored above the primer level, the finest discrimination possible was either a semester or a full year's gain (2.5, 4.5, 6.0, etc.).

Because the Clinic utilized the Informal Reading Inventory to ascertain progress (no standardization or norms) the testing done during July and August presented no special problem. The student's grade placement was determined in the following fashion:

1. The academic year was the assigned grade the student was placed in. If tested just after completing an academic year (late June) or during the summer months (July-August), the assigned grade would be the one the child would be in when he enters school in the fall.

2. The months, beginning with September were assigned numbers. September was month 1, October, month 2 and continuing through August as month 12. When these were linked with the academic year, they determined the student's grade placement.

In this manner the achievement ratio would be set up as follows for each individual child:

Achievement Ratio: Academic year and month

Assigned grade	Pretest	Posttest
Achievement (highest I level)		

In analyzing the data, the individual cases may be recombined by grade level at posttest.

Table 2: Achievement of six First Grade Pupils.

	Pretest Grade Level	Posttest Grade Level	Pretest Reading Level	Posttest Reading Level
	1.8	2.6	.0	.0
	1.8	2.7	.0	.0
	1.8	2.7	.0	.5
	1.9	2.7	.5	.5
	1.9	2.7	.5	1.0
	1.9	2.6	.5	2.5
TOTALS	11.1	16.0	1.5	4.5
MEANS	1.9	2.7	.3	.8
			RANGE .0 - .5	RANGE .0 - 2.5

As noted above, the mean for pretest and posttest grade levels and for reading levels for the group are determined. The range of progress for both pretest and posttest is evident as well.

Graph 1, shows the mean pretest and posttest reading levels and the range of levels obtained by six first graders. (see page 20)

Line AB represents expectancy.
Line AC represents the pretest rate of progress.
Point C represents the mean pretest reading level of the group.
Line CD represents the posttest rate of progress.
Point D represents the mean posttest reading level of the group.
The vertical bars at the pretest and posttest points represents the range of reading levels for the group.

These same observations may be done for each succeeding grade level.

Graph 1: Progress of six First Grade Pupils.

The results may be graphically represented. Point C is the mean pretest reading level (.3) for the group. Point D (.8) is the posttest reading level for the group.

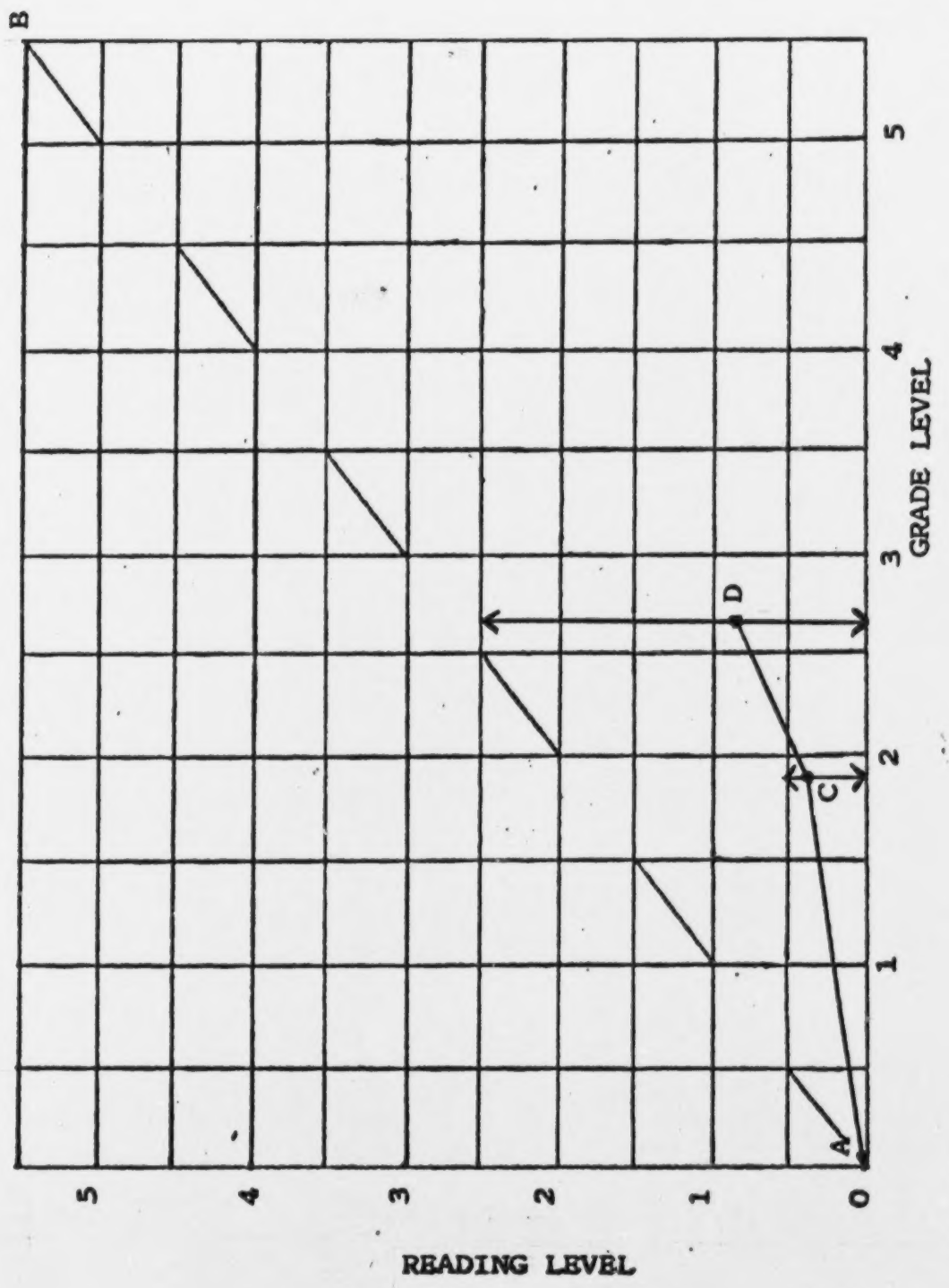
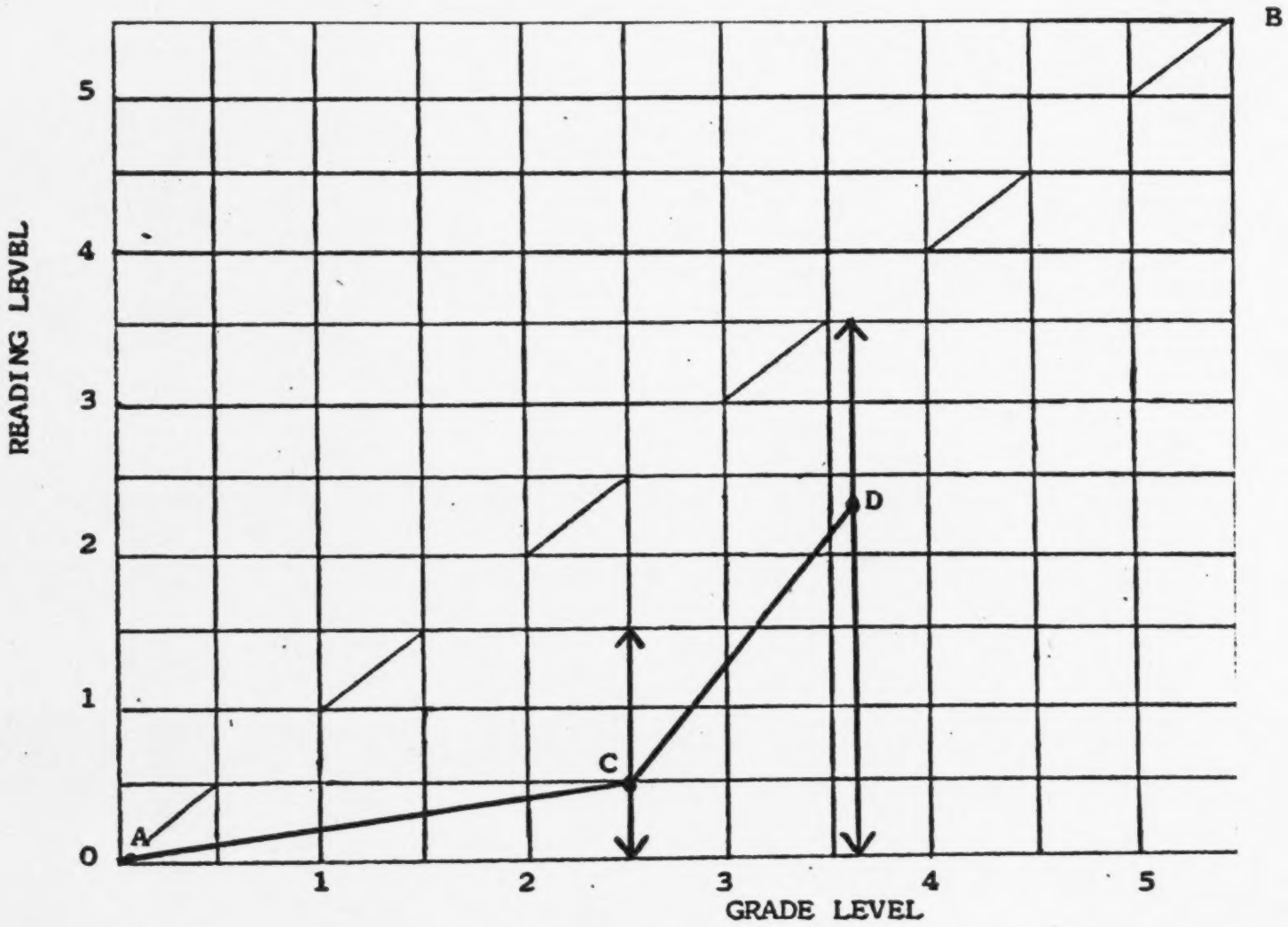


Table 3: Achievement of Twenty-seven Second Grade Pupils.

	Pretest Grade Level	Posttest Grade Level	Pretest Reading Level	Posttest Reading Level
	2.1	3.6	.0	2.0
	2.1	3.6	.5	3.0
	2.2	3.5	.0	1.5
	2.2	3.5	.5	3.5
	2.2	3.6	1.0	3.5
	2.3	3.6	.5	3.0
	2.3	3.7	.0	3.0
	2.4	3.7	1.5	.5
	2.4	3.7	.5	3.0
	2.4	3.6	1.0	.5
	2.4	3.6	.5	3.5
	2.5	3.6	.5	3.0
	2.5	3.6	.0	3.0
	2.5	3.6	.0	2.5
	2.5	3.5	.5	.0
	2.7	3.5	1.0	2.0
	2.6	3.5	.5	2.0
	2.7	3.7	.0	2.5
	2.7	3.7	.0	.5
	2.7	2.8	.5	2.5
	2.7	3.8	1.5	2.0
	2.7	3.8	1.5	3.5
	2.8	3.7	.0	3.0
	2.9	3.7	.0	1.5
	2.9	3.7	.5	.5
	2.9	3.7	1.0	2.5
	2.9			3.0
TOTALS	68.2	98.1	14.0	61.0
MEANS	2.5	3.6	.5	2.3
			RANGE .0 - .5	RANGE .0 - 2.5

See Graph 2, page 22, for the graphic progress of the twenty-seven second grade pupils.

Graph 2: Progress of Twenty-Seven Second Grade Pupils.



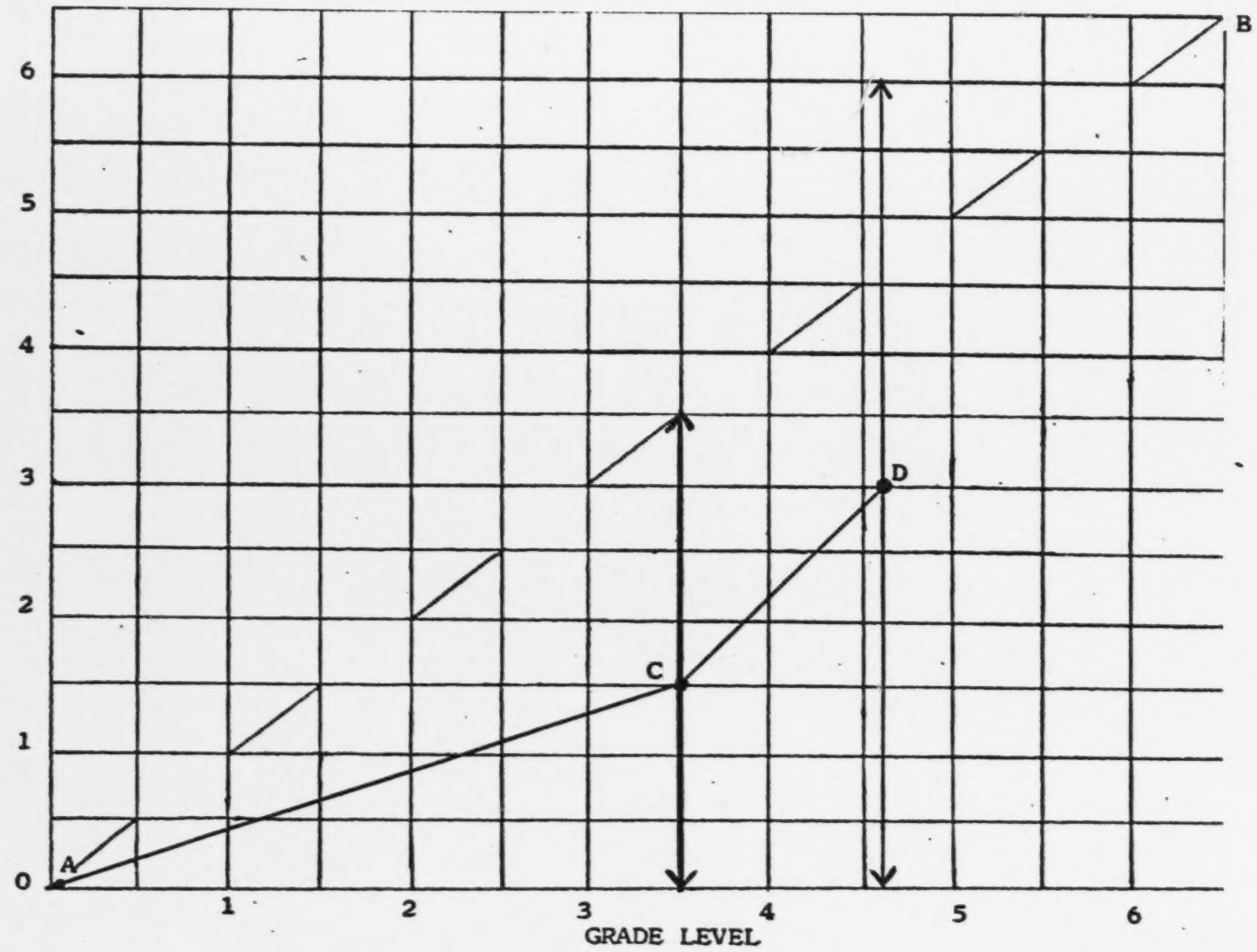
Graph 2 shows the mean pretest and posttest reading levels and the range of levels obtained by 27 second graders. Point C (.5) is the pretest level and point D (2.3) is the posttest level for the group.

Table 4: Achievement of Twenty-Eight Third Grade Pupils.

	Pretest Grade level	Posttest Grade level	Pretest Reading level	Posttest Reading level
	3.1	4.6	1.5	5.0
	3.1	4.6	.0	1.5
	3.1	4.5	2.0	3.0
	3.1	4.5	.0	.5
	3.1	4.5	.0	.0
	3.1	4.5	.5	3.0
	3.2	4.5	2.5	3.5
	3.2	4.8	2.5	6.0
	3.2	4.8	2.0	3.5
	3.3	4.6	1.0	3.0
	3.3	4.5	.5	4.0
	3.3	4.6	.5	4.0
	3.3	4.6	2.0	3.0
	3.4	4.7	2.5	3.5
	3.5	4.4	2.5	4.0
	3.5	4.6	2.0	3.0
	3.5	4.6	2.5	3.5
	3.7	4.7	.5	1.5
	3.7	4.7	3.5	3.0
	3.7	4.8	.0	.5
	3.8	4.8	3.0	4.5
	3.8	4.5	2.5	5.0
	3.8	4.5	2.0	2.5
	3.9	4.7	.5	3.0
	3.9	4.5	2.5	4.0
	3.9	4.5	.5	1.0
	3.9	4.5	1.0	3.0
	3.9	4.5	1.5	2.5
TOTALS	97.3	128.6	42.0	84.5
MEANS	3.5	4.6	1.5	3.0
			Range .0 - 3.5	Range .0 - 6.0

See Graph 3, page 24 for the graphic progress of the twenty-eight third grade pupils.

Graph 3: Progress of Twenty-Eight Third Grade Pupils.



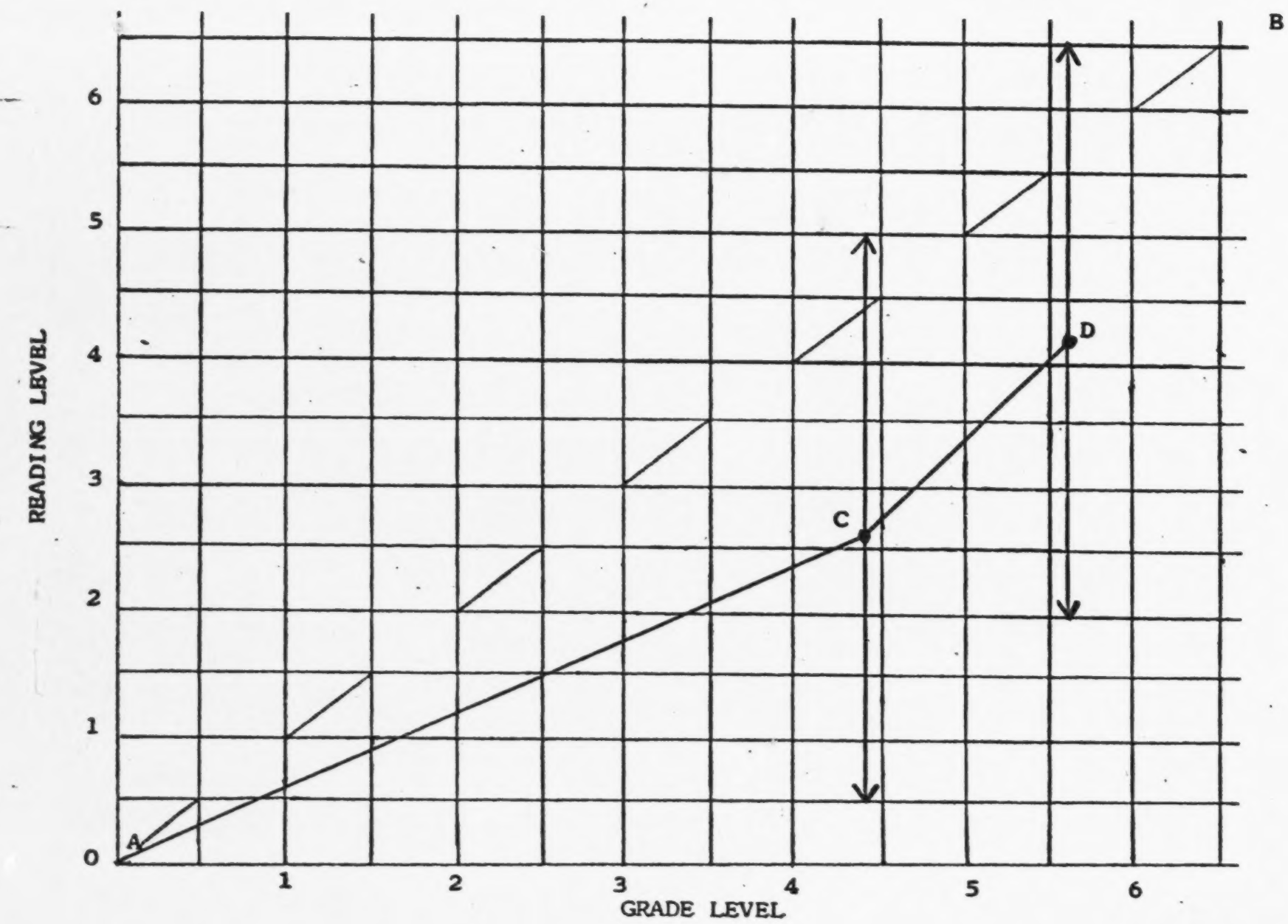
Graph 3 shows the mean pretest and posttest reading levels and the range of levels obtained by 28 third graders. Point C (pretest) is 1.5 and point D (posttest) is 3.0 for the group.

Table 5: Achievement of Thirty-One Fourth Grade Pupils.

Pretest Grade level	Posttest Grade level	Pretest Reading level	Posttest Reading level
4.0	5.6	2.5	6.0
4.5	5.4	4.0	5.0
4.1	5.4	2.0	2.0
4.1	5.6	1.5	3.5
4.1	5.5	2.0	3.0
4.2	5.5	2.0	3.5
4.2	5.6	.5	2.0
4.2	5.6	3.0	3.0
4.2	5.8	2.5	5.5
4.2	5.8	4.5	6.5
4.2	5.8	.5	4.5
4.2	5.7	4.0	3.0
4.3	5.6	1.5	3.0
4.3	5.6	3.0	4.0
4.3	5.6	3.0	6.0
4.3	5.6	3.0	5.0
4.5	5.4	3.0	5.0
4.5	5.5	3.5	6.5
4.5	5.5	3.0	3.0
4.5	5.4	1.5	5.0
4.4	5.5	1.5	2.5
4.6	5.5	3.5	6.0
4.6	5.5	1.0	3.5
4.6	5.5	2.0	3.0
4.6	5.5	2.0	3.5
4.7	5.6	3.5	5.0
4.7	5.8	2.0	3.5
4.8	5.5	3.0	3.5
4.8	5.8	3.0	5.0
4.8	5.5	3.0	5.0
4.9	5.6	5.0	6.0
TOTALS 136.5	172.8	80.0	131.5
MEAN 4.4	5.6	2.6	4.2
		Range	Range
		.5 - 5.0	2.0 - 6.5

See graph 4, page 26, for the graphic progress of the thirty-one fourth grade pupils.

Graph 4: Progress of Thirty-One Fourth Grade Pupils.

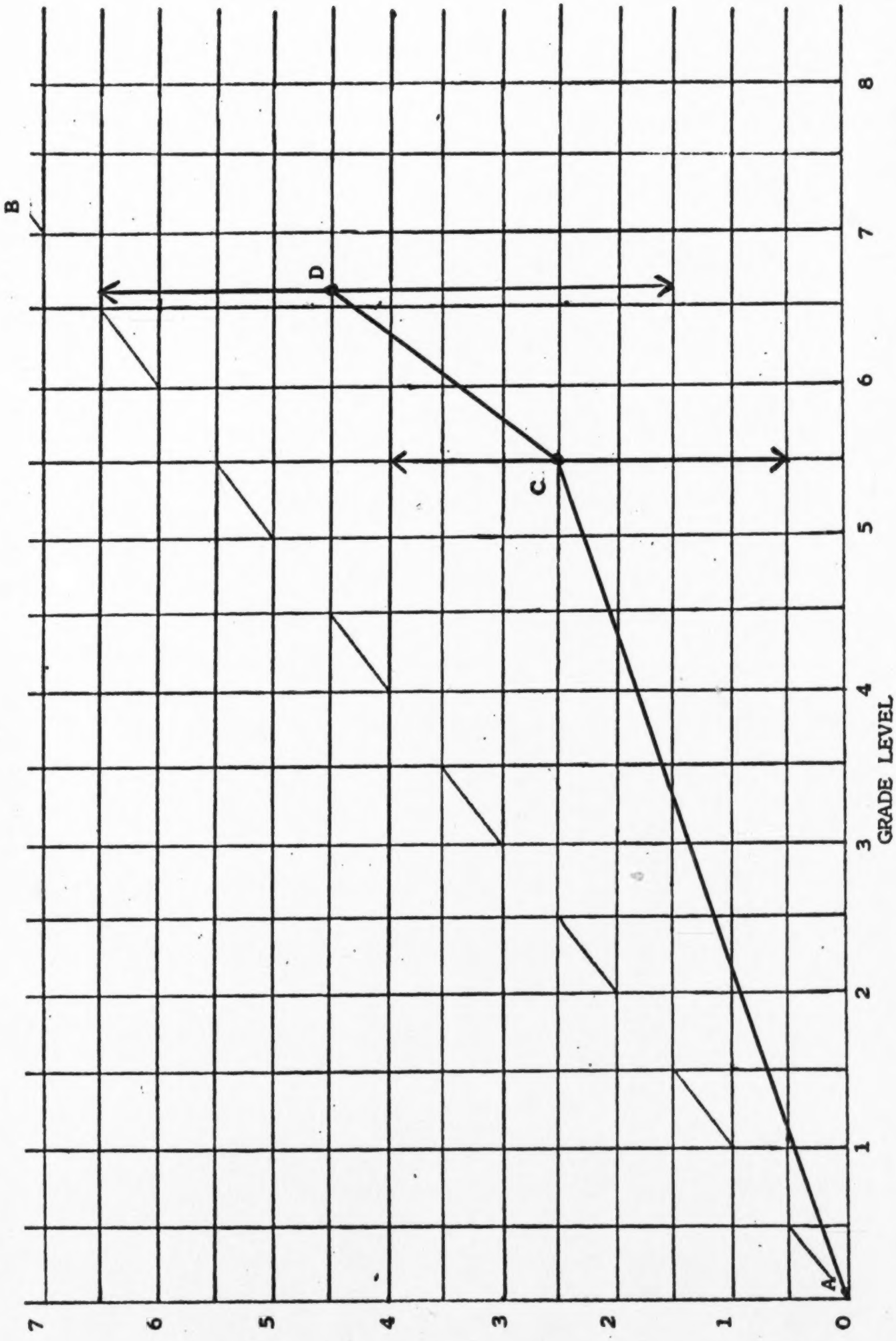


Graph 4 shows the pretest reading level to be 2.6 (point C) and the posttest reading level to be 4.2 (point D) for the group.

Table 6: Achievement of Eleven Fifth Grade Pupils.

Pretest Grade level	Posttest Grade level	Pretest Reading level	Posttest Reading level
5.1	6.5	.5	1.5
5.2	6.5	2.5	5.0
5.3	6.6	3.0	4.0
5.3	6.6	4.0	5.0
5.4	6.7	4.0	6.5
5.4	6.5	3.0	5.0
5.6	6.5	2.0	3.5
5.8	6.5	1.0	3.0
5.8	6.7	2.0	4.0
5.8	6.7	4.0	6.5
5.9	6.7	1.0	5.0
TOTALS 60.6	72.5	27.0	49.0
MEANS 5.5	6.6	2.5	4.5
		Range .5 - 4.0	Range 1.5 - 6.5

See graph 5, page 28, for the graphic progress of the eleven fifth grade pupils.



Graph 5: Progress of Eleven Fifth Grade Pupils

Graph 5 shows the pretest reading level to be 2.5 (point C) and the posttest level to be 4.5 (point D).

Table 7: Achievement of Eight Sixth Grade Pupils.

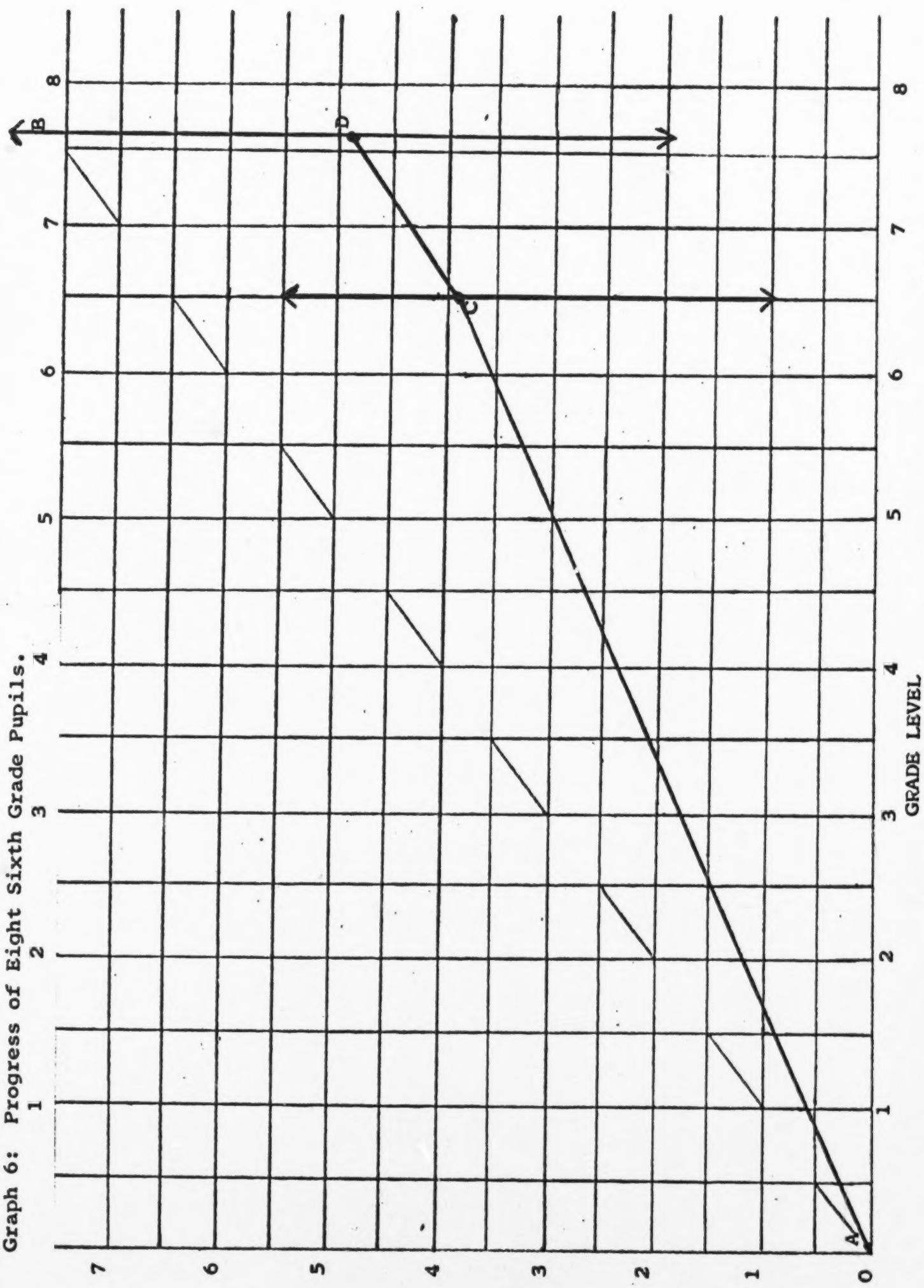
	Pretest Grade level	Posttest Grade level	Pretest Reading level	Posttest Reading level
	6.1	7.6	1.0	2.5
	6.2	7.6	2.5	2.5
	6.4	7.4	5.0	5.5
	6.5	7.4	5.0	6.5
	6.5	7.5	5.5	8.0
	6.6	7.7	5.0	6.0
	6.6	7.7	2.0	2.0
	6.8	7.7	5.5	6.5
TOTALS	51.7	60.6	31.5	39.5
MEANS	6.5	7.6	3.9	4.9
			Range 1.0 - 5.5	Range 2.0 - 8.0

See page 30 for the graphic progress of the eight sixth grade pupils.
Line AB represents reading expectancy for the group. Line AC shows the pretest rate and point C is the mean pretest level for the group. Line CD represents the posttest rate of progress and point D is the mean for the group. The vertical bars with arrows show the range for pretest and posttest levels.

Table 8: Achievement of Three Seventh Grade Pupils.

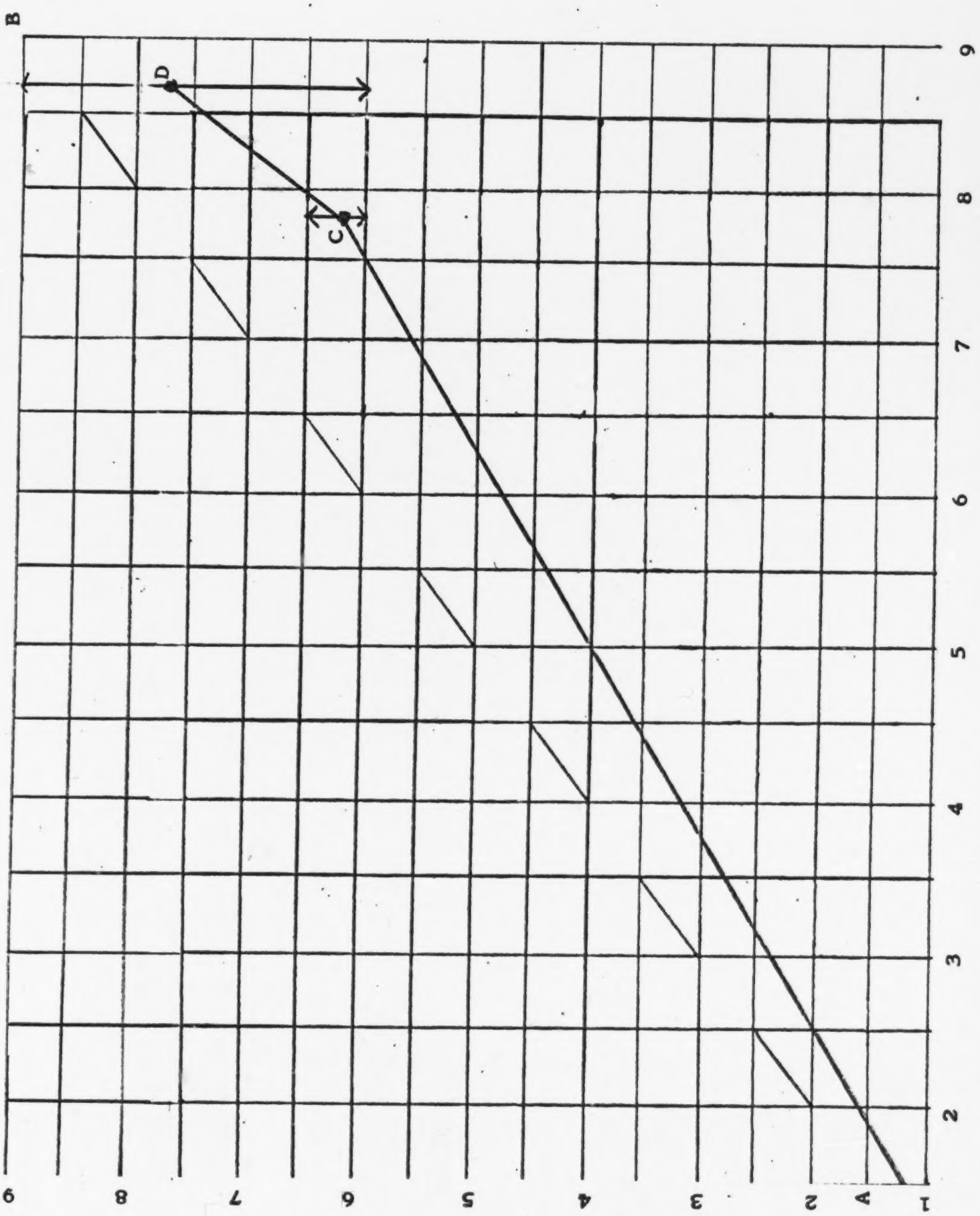
	Pretest Grade level	Posttest Grade level	Pretest Reading level	Posttest Reading level
	7.6	8.5	6.0	6.0
	7.8	8.6	6.5	8.0
	7.9	8.7	6.0	9.0
TOTALS	23.3	25.8	18.5	23.0
MEANS	7.8	8.6	6.2	7.7
			Range 6.0 - 6.5	Range 6.0 - 9.0

See page 31 for the graphic progress of the three seventh grade pupils.



Graph 6: Progress of Eight Sixth Grade Pupils.

Graph 6 shows the mean pretest and posttest reading levels and the range of reading levels obtained by 8 sixth graders. Pretest level is 3.9 (point C) and posttest is 4.9 (point D).



Graph 7: Progress of Three Seventh Grade Pupils.

The table below (Table 9) gives the mean gains for the 114 cases. The instructional reading level was totaled for each grouping at the time of pretests and posttests. All cases had a mean gain of 1.5, (3.4 - 1.9 = 1.5).

Table 9: Reading Level Gains for 114 Cases.

Grade	Number of Cases	Pretest	Posttest	Pretest Range	Posttest Range
1	6	1.5	4.5	0-.5	0-2.5
2	27	14.0	61.0	0-1.5	0-3.5
3	28	42.0	84.5	0-3.5	0-6.0
4	31	80.0	131.5	5-5.0	20-6.5
5	11	27.0	49.0	5-4.0	1.5-6.5
6	8	31.5	39.5	1.0-5.5	2.0-8.0
7	3	18.5	23.0	6.0-6.5	6.0-9.0
TOTALS	114	214.5	393.0		
MEANS		1.9	3.4		
PRETEST RANGE				.0-6.5	
POSTTEST RANGE					.0-9.0

When the cases are organized as to whether the students were instructed in the regular classroom or in remedial classes, the following information is made available.

Table 10: Gain by Type of Instruction.

Grade	Number of cases regular class	Pretest	Posttest	Grade	Number of cases remedial class	Pretest	Posttest
1	0	-	-	1	6	1.5	4.5
2	16	11.5	43.5	2	11	2.5	17.5
3	17	29.0	51.5	3	11	13.0	33.0
4	23	64.5	106.5	4	7	14.0	22.5
5	9	25.0	41.0	5	2	2.0	8.0
6	6	24.5	31.5	6	2	7.0	8.0
7	3	18.5	23.0	7	0	-	-
TOTALS	74*	173.0	297.0		39*	40.0	93.5
MEANS		2.3	4.0			1.0	2.4

*One student placed in Special Education Class

When the pretest and posttest means were subtracted for each instructional setting, the 39 students in remedial reading classes averaged gains of 1.4 compared to gains of 1.7 for those instructed by regular classroom teachers.

Further analysis was concerned with the time factor involved. The average time lapse was determined for each individual case by finding the difference between the pretest and posttest dates.

Time Lapse in Months:
Date of posttest _____
Date of pretest _____
Difference in months _____

The averages for each grade were subsequently determined. They are reported in Table 11, below. The mean gains in achievement for each grade level are reported.

Table 11: Average Gain by Grade Level at Posttest

Posttest Grade	Number of Cases	Average time lapse in months	Average gains or losses in months
1	3	10	0
2	9	12	15
3	26	14	21
4	26	13	21
5	26	14	19
6	11	13	24
7	8	14	12
8	3	10	18

The average time lapse between the pretest and posttest dates for all 114 cases was 13.1 months. During this time the average gains in terms of months of instructional growth was 18.8.

e. Observations and Implications.

The data which has been presented in the preceding tables has been based on a random sampling of 752 pupils. These pupils were enrolled in school during the school years -- 1969-71.

1. The typical child gained about one year and six months of reading growth in approximately 12 months of elapsed time. It should be noted that elapsed time does not coincide with instructional time because of the school holidays and summer vacations. In this case, the typical child gained at a rate even more rapidly than is indicated.

2. Of the 114 cases that were posttested, 101 of the students showed gains in reading. Seventy-six students (67 percent) showed gains either greater than or comparable to the time they invested. In other words, 2/3 of the children gained significantly more than the time they invested. Only eleven (11) students showed no gains and two (2) exhibited regression.

3. The mean pretest score for the 114 cases, using the ratio technique, was 1.9 and the mean posttest score was 3.4. The reading growth of 1.5, or one year and six months, compliments the growth shown by using the months of gain and time lapse method. The reading gains were very consistent throughout most of the grade levels. The fact that every grade level broadened its reading range supports the fact that good growth had taken place. It should be recognized that the wider the reading range of a particular group or grade level becomes, the more superior the job of teaching has been. When the reading range widens, it appears that teachers are meeting individual needs and are personalizing instruction. Certainly, the setting of the four reading levels (independent, instructional, frustration, capacity) by the Reading Clinic enabled the teacher to better meet the child's needs.

4. It is quite significant that those students in the regular classroom showed growth somewhat greater than those being seen by remedial reading teachers. The diagnostic program has provided instructional data about the pupil and the report has encouraged the parent, the teacher and the pupil to improve reading skills. The regular classroom teacher has accepted the challenge of the disabled reader.

5. From the raw scores (Table 1) only three pupils showed a loss in percentage scores. The failure pattern has been interrupted in 96 percent of the cases.

Much of the successful intervention can be attributed to the renewed spirit of cooperation by the pupil and teacher in solving the reading difficulty.

IV. Appendices:

a. Pretest Data Sheet (Form R-215)

b. Word Recognition List (Daniel's)

c. Posttest Comparison Data Sheet (Form R-231)

d. Retest Data Sheet (Form R-230)

NORTHWEST MULTI-SERVICE EDUCATIONAL CENTER
P.O. Box 295, Valparaiso, Indiana 46383
Dial 219-462-8580

FORM R-215 Informal Reading Inventory — Northwest Reading Clinic*

Name: _____ Case#: _____ CA: _____ Date: _____ Grade: ____

Examiner: _____

SUMMARY RECORD

Level	Word Recognition			Comprehension				ORR	Spelling Results Form
	Isolation		Context						
	Flash	Untimed	%	Oral	Silent	Average	Hearing		
PP									
P									
1									
2									
3									
4									
5									
6									
7									
8									
9									

Summary of Specific Needs:

Basal _____

Independent _____

Immed. Instr. _____

Frustration _____

Capacity _____

Case Typing and Prognosis:

* Constructed by the Reading Clinic Staff -- October, 1968

Stories used by permission of American Book Company.

PREFRIMER

Oral: 32 words (F-3)

Motivation: Read to find out what the children are looking at.

"Here is a big blue toy for you," said Jimmy.

Sally said, "I do not want a big toy..

I want a little toy.

I do not see the toy I want".

Oral Comprehension (20 points each)

F. 1. What are Jimmy and Sally looking at?
(toys)

F 2. What color is the toy?
(blue)

I 3. Who saw the toy first?
(Jimmy, boy)

F 4. What kind of toy does Sally want?
(little one)

V 5. What word means the same as tiny?
(little or small)

PREPRIMER

Silent: 28 words (F-3)

Motivation: Read to find out where the family is going.

"Jump in" said Father.

"We will go for a ride".

"We will see something you like".

"What is it?" said Jane.

"WE WILL SEE A TRAIN," SAID MOTHER .

Silent Comprehension (20 each)

F 1. What are the people going to see?
(train)

I 2. What are they going to ride in?
(car)

I 3. Who is going for a ride? Anyone else?
(family, or Jane, father, mother)

F 4. What did father tell the family to do?
(jump in - get in)

I 5. How is a train different from a car?
(bigger, public, price, etc.)

Oral Rereading

Read what mother said.

PRIMER

Oral: 28 words (F-3)

Motivation: Where are some of the places you like to play?
Read to find out where Sue played.

One day Sue went
for a walk in the park.
Soon she saw something.
"A penny!" said Sue.
"I see a penny. I will
get something with it".

Oral Comprehension (20 each)

F 1. What did Sue find?
(penny)

F 2. Where did she find the penny? Where was that?
(park)

I-F 3. What was Sue doing just before she found the penny?
(walking, playing)

I 4. How do you know the penny was lost?
(lying on ground - Sue found it)

V 5. What is a park?
(place to play, swing, etc., green grassy area)

PRIMER

Silent: 31 words (F-3)

Motivation: What might Sue do with the money she found?

Sue went to get some candy.
She said to the Candy Man,
"I WANT CANDY, PLEASE.
I HAVE A PENNY".
She looked for the penny.
But she did not find it.

Silent Comprehension (20 each)

F 1. What was Sue going to buy?
(candy)

F 2. Where did she go?
(to the store, to the candyman)

I 3. How much candy did she buy?
(none)

F 4. Why couldn't she buy any candy?
(no money)

V 5. What is a penny?
(small amount of money - 20; description - 10)

Oral rereading

Read what Sue said to the Candyman.

FIRST READER

Oral: 49 words (F-5)

Motivation: Find out how Dick took his animal to the fair?

This was the day all the children
took their animals to the Fair.
Dick had worked all week
to get his little black pig ready to go.
He put some hay
into his father's truck.
He put his pig into the truck.
And away they went to the Fair.

Oral Comprehension (20 each)

F 1. Where is Dick going today?
(to the fair)

F 2. What did Dick put into the truck? What else?
(hay and pig)

F 3. What color was the pig?
(black)

I 4. Why did Dick put hay into the truck?
(food, safety, cleanliness, bed)

I 5. Who is driving Dick to the fair?
(father)

FIRST READER

Silent: 45 words (F-5)

Motivation: What happened when Dick got to the fair?

When they came to the Fair,
the pig walked down from the truck.
HE LOOKED AS HAPPY
AS A PIG CAN LOOK.
Dick put his pig in the barn
with all the other animals.
Some of them were country animals.
Others came from the city.

Silent Comprehension (20 each)

F 1. How did the pig look when he got to the fair?
(happy)

F 2. Where did Dick put his pig?
(barn)

F. 3. Where did the animals at the fair come from? Where else?
(city and country)

I 4. Why is Dick taking his pig to the fair?
(enter in contest)

V 5. What does the word "country" mean in this story?
(outside of city, by farm, etc.)

Oral Rereading

Read the part of the story which tells how the pig looked.

SECOND READER

Oral: 53 words (F-5)

Motivation: What kinds of animals do people ride on?
Read about the animal in this story.

Whitey was an old horse who
worked in the park.
He gave children rides
on his back. The children liked him.
"Go on, old Whitey", they said.
And around and around he went.
He was not very big. He did not run fast.
So he was a good, safe horse to ride.

Oral Comprehension (16.6 each)

F 1. What was Whitey?
(a horse)

I 2. How do you know the children liked Whitey?
(because they rode him, friendly, safe)

F 3. Where did Whitey work?
(in the park)

I 4. How do you know the path was shaped like a wheel?
(he went around and around)

F-I 5. Describe the horse. (5 points each)
(3: not big, not fast, old, safe, good, white, work)

F-I 6. Why was Whitey a safe horse?
(didn't run fast, wasn't too big)

SECOND READER

Silent: 59 words (F-6)

Motivation: Read more about Whitey.

Whitey was not just a safe horse. He was clever, too. He thought of a way to get something to eat.

Whitey turned his head around and saw a boy who was eating ice cream.

Before the boy could stop him, Whitey ate the ice cream.

"OH!" CALLED THE BOY.

"WHITEY ATE ALL MY ICE CREAM!

THERE'S NOTHING LEFT!"

Silent Comprehension (16.6)

F 1. What did Whitey eat?
(ice cream)

F 2. Whose ice cream did he eat?
(the boy's)

V 3. What does clever mean?
(smart, tricky)

I 4. How much ice cream did Whitey leave for the boy?
(none)

I 5. How do you think the boy felt about the horse eating his ice cream?
(mad, disappointed, angry, bad, sad)

S 6. What would be a good title for this story?
(The Horse That Ate Ice Cream)

Oral Rereading

Read what the boy said after Whitey ate his ice cream.

THIRD READER

Oral: 78 words (F-8)

Motivation: When do you buy people presents?

One snowy Saturday the door of the market was opened. A puff of cold, sharp air blew in. With it came a boy who was dressed in a warm hat and coat. But he looked cold.

"I used to live where it was always warm", he said. "I'm not used to the weather here in the East".

"It's a cold day for Christmas shopping", said Mr. Winters. "But it's warm in here. Now what can I show you"?

Oral Comprehension (12.5 each)

F 1. On what day of the week did the story take place?
(Saturday)

F 2. In what part of the country did the story take place?
(in the East)

F 3. Who came into the market?
(a boy)

F 4. How was he dressed?
(warm, heavy clothes)

F 5. What was the weather like outside? What else?
(snowy and cold)

I 6. Why did the boy notice the cold weather so much?
(because from warm area, bitter cold day)

I 7. In what month did the story take place?
(November or December)

F 8. What was the name of the man who waited on the boy?
(Mr. Winters)

THIRD READER

Silent: 80 words (F-8)

Motivation: What might the boy buy from Mr. Winters?

"I'm having a hard time buying a present", the boy said. "I haven't much money left -- just ten cents. I've bought things for my mother and father, but not for my sister. What can I get for ten cents"?

"WOULD YOUR SISTER LIKE A CACTUS", ASKED MR. WINTERS WITH A SMILE. "Here is one that isn't very big, but it has nine spikes. That's about a cent a spike. The price was a quarter, but for you it's ten cents".

Silent Comprehension (12.5 each)

F 1. Who was the boy buying a present for?
(sister)

F 2. How much money did he have to spend?
(10¢)

F 3. Altogether, how many people did he have to buy presents for?
(3)

F 4. What did Mr. Winters want to sell the boy?
(cactus)

V 5. What are "spikes" in this story?
(needles on cactus)

F 6. How many spikes did the cactus have?
(9)

I 7. How much did Mr. Winters take off the price for the boy?
(15¢)

S 8. What is a good title for this story?
(Buying a Present, etc.)

Oral Rereading

Read the part that told you Mr. Winters was a happy, friendly person.

FOURTH READER

Oral: 113 words (F-11)

Motivation: Read to find out about turtles.

There are many kinds of turtles, living in many different countries. They belong to the same group of animals as snakes, and they can live both on land and in water.

All turtles have bodies covered with scales. The shell of the turtle is the boxlike casing for its body. Inside, are the backbone and ribs, which are joined tightly with the shell. The shell is thick, hard, and strong and does not break, even in the teeth of a big dog.

The top part of the shell is rounded, but the bottom is flat, so that the animal's legs can reach the ground. A turtle crawls along much like a creeping baby.

Oral Comprehension (12.5 each)

F 1. Where do turtles usually live? Where else?
(live in many countries, or on water and land)

F 2. How are snakes and turtles alike?
(1 answer: same group of animals; both land and sea; both scales)

V 3. What is the boxlike casing for a turtle's body called?
(shell)

F 4. Tell me three things about the turtles shell?
(3 answers needed: thick, hard, strong, won't break, boxlike, round on top and flat on bottom)

F 5. Why is the bottom of the shell flat?
(legs can reach ground)

V 6. What word describes how the turtle moves about?
(creep, crawl)

I 7. Why do you think a turtle needs more protection from its enemies than most animals?
(slow moving, soft body)

V 8. What does the word casing mean?
(outer covering, protective case)

FOURTH READER

Silent: 99 words (F-10)

Motivation: Perry discovered the North Pole. What do you think he might have seen?

At the North Pole the sun does not shine for six months of the year. Yet a winter night there may not be as dark as a winter night in your own home town. This is because the moonlight on the snow and ice is very bright. The air, too, is so clear that the moon can be seen for days at a time.

THE ARCTIC SUMMER IS VERY SHORT, BUT PLANTS GROW FASTER AND OFTEN BIGGER THAN IN OTHER PARTS OF THE WORLD. INDEED, SOME PLANTS GROW, LEAF, FLOWER, AND THEN GO TO SEED, ALL IN ONE MONTH!

Silent Comprehension: (12.5 each)

F 1. What two seasons are mentioned in this story?
(summer, winter)

V 2. What is another word for North Pole?
(Arctic)

F 3. How does ice and snow help to make the winter nights bright?
(moonlight reflected on snow and ice)

F 4. In what season do plants grow well in the Arctic?
(summer)

I 5. Give me two reasons why Arctic winters differ from Arctic summers.
(length, vegetation, climate)

F 6. Name three parts of a plant mentioned in this story.
(3-leaf, flower, seed)

I-F 7. Why is the growing season of the Arctic so unusual?
(one month - concept of length)

S 8. What did this story tell most about the North Pole?
(weather, vegetation)

Oral Rereading

Read the part that tells about the growing season of the Arctic.

FIFTH READER

Oral: 100 words (F-10)

Motivation: Read this passage to learn about one of Holland's problems.

Hundreds of years ago, the only sea wall in Holland was the natural wall made from the high sand dunes along the shore. To strengthen the dunes and hold them together, the people planted strong grass. But they soon found that the strengthened dunes could not hold back the sea. And so the dikes were built.

In very early days the people who lived in Holland built small dikes along the rivers and the sea. These were very simple dikes made of earth mixed with seaweed, and time and again the water broke through and flooded the flat country beyond.

Oral Comprehension (10 each)

F 1. How many years ago did the people of Holland use natural sea walls?
(hundreds)

V 2. What is a sand dune?

(a large, natural hill of sand) - concept of height.

I 3. What is the difference between the first seawall and the ones that followed it?

(concept man-made vs. natural)

V 4. What is a dike? (Question - Use)
(wall to hold back sea)

F 5. Why did the people plant grass?
(to strengthen dunes - hold together)

F 6. Why did the people stop planting grass on the dunes?
(didn't work)

F 7. What were the simple dikes made of? What else?
(earth - seaweed)

V 8. What is seaweed?
(water plants)

F 9. Did the earthen dikes solve the problem? Why?
(No - broke through)

V 10. Tell how a river differs from the sea.
(size - salinity - movement, 1 concept)

FIFTH READER

Silent: 121 words (F-12)

Motivation: Read to find out how the dikes are built.

The older men of Holland who built the dikes knew they were battling the sea. They had worked hard to make the level swampy land ready for growing fields of corn. IT WAS A SERIOUS MATTER WHEN THE WATER BROKE THROUGH THE DIKES AND DESTROYED THE CROPS, FOR THEN THE PEOPLE FACED A WINTER WITHOUT BREAD.

At first, they used wood for the dikes instead of earth and seaweed. But the wood did not last. Next, they built their dikes of stone, but too often the dikes were not high enough or broad enough. Today, they are still building stone dikes -- but higher and wider ones. Some are so wide they have roads on top, where cars, buses, and bicycles travel.

Silent Comprehension (10 each)

I 1. Why could this story be called "War Against the Sea"?
(fighting water)

F 2. Describe the farm land of Holland.
(swampy, level, low, flat)

F 3. What was the crop grown in Holland?
(corn)

F 4. What did the people make from the corn?
(bread)

F 5. Why was it a serious matter when the water broke through the dike?
(destroys crops, no food for winter)

F 6. What material did the men first use to replace earth and seaweed in the dike?
(wood)

F 7. How effective was the use of wood?
(did not last or hold well)

F 8. What was used to replace the wood?
(stone)

I-F 9. How do you know that stone dikes were effective?
(still in use - negative if proof given)

V 10. What does the phrase "face the winter" mean?
(survival - 10; preparation - 5)

Oral Rereading

Read the part that tells what happens when the water breaks through the dikes.

Oral: 136 (F-14)

Motivation: What kinds of animals do you see on a safari? Read to find out about this man's adventure.

Livingston suddenly stopped short. Just ahead was a lion crouching on a rock. Up went his rifle. He took careful aim and fired both barrels straight into the lion's body.

Cries from the warriors came from behind. "He is shot! He is shot"! Livingston saw the lion's tail rise in fury. Behind him came running feet. In another instant the tribesmen would have rushed toward the wounded beast. "Wait! Wait"! he shouted. "I'll load and fire again".

As fast as he could, he reloaded his gun. But before he could aim, he heard Flomo scream. He looked up. The lion was in mid-air, springing straight at him. A tremendous weight struck his shoulder. Claws tore his flesh. Down he went, with the lion on top. Snarling savagely, the lion shook Livingston as a dog shakes a rat.

Oral Comprehension: (10 each)

I 1. Where did the story take Place? (Africa)

F-I-2. Why did Livingston shoot the lion? (self protection or hunting)

V 3. What does "crouching" mean? (ready to spring, poised for action or demonstration)

F 4. How do you know there were other people with Livingston? (tribesmen, warriors, Flomo, or footsteps)

F-I-5. Why did Livingston tell the tribesmen to remain behind him after his first shot? (so he could fire again or to be sure the lion was dead)

F 6. Who was Flomo? What did he do? (tribesman who screamed or warned Livingston)

I 7. How do you know the lion was not fatally wounded? (raised tail in fury or springing at him or because of the attack)

F 8. How do you know the lion weighed a great deal? (tremendous weight)

V 9. Define "snarling savagely". (fierce, ferocious, growling demonstration)

F 10. How did the lion wound Livingston? (struck shoulder, claws tore flesh)

Silent: 159 words (F-16)

Motivation: Why are birds able to fly?
Read this to discover how they are able to fly.

Why are birds able to fly? Scientists studying the structure of birds have found the answer. Flying they have learned, depends on several things.

Weight is very important in flying, for light things stay in the air more easily than heavy things. Birds are built very lightly, with empty spaces called air sacs in their bodies. The large bones in their legs and wings are hollow too. Other bones have shapes that make them strong, although they are not heavy. FULL-GROWN ROBINS DO NOT EVEN WEIGH A POUND, AND EAGLES WEIGH ONLY TEN OR TWELVE POUNDS.

All birds that fly have shapes that help them go through the air. The bodies of birds are streamlined.

However, even streamlined, lightweight bodies need wings with strong muscles. The muscles that move a bird's wings are fastened to a breastbone, or keel, on the underside of the body. Since the keel is very wide, the muscles can be large and strong.

Silent Comprehension (10 each)

F 1. Who has been studying the structure of birds? (scientists)

F 2. What are the empty spaces in birds' bodies called? (air sacs, pockets)

I 3. What purpose do "air sacs", serve in the birds' body?
(make it lightweight)

F 4. Name two special features about the bones of birds. (hollow, weight, shape)

F 5. How much does a full grown robin weigh? (less than a pound)

V 6. What does "streamlined" mean? (smooth shape)

F 7. Name four features of a birds' body that help in flying?
(streamlined shape, hollow bones, lightweight, strong muscles)

V 8. What is another word for the birds' breastbone? (keel)

I 9. Why can't some birds, like chickens, fly well?
(lack necessary features)

I-10. How might scientists use these findings to design airplanes?
(streamline shape, hollow spaces, balance, weight, proportion)

Oral Rereading

Read the part that compares two well know birds.

Daniel's

Word Recognition List

P. P. - 5

Name _____ Date _____

Stimulus PP-A		Flash	Untimed
1.	little	_____	_____
2.	Mother	_____	_____
3.	see	_____	_____
4.	it	_____	_____
5.	something	_____	_____
6.	to	_____	_____
7.	we	_____	_____
8.	down	_____	_____
9.	Big	_____	_____
10.	not	_____	_____
11.	Here	_____	_____
12.	with	_____	_____
13.	Little	_____	_____
14.	Is	_____	_____
15.	Come	_____	_____
16.	It	_____	_____
17.	Look	_____	_____
18.	The	_____	_____
19.	I	_____	_____
20.	can	_____	_____

Daniel's

Word Recognition List

Name _____ Date _____

Stimulus P - A	Flash	Untimed
1. likes	_____	_____
2. blue	_____	_____
3. saw	_____	_____
4. three	_____	_____
5. she	_____	_____
6. In	_____	_____
7. wants	_____	_____
8. what	_____	_____
9. Where	_____	_____
10. at	_____	_____
11. ride	_____	_____
12. dog	_____	_____
13. into	_____	_____
14. good	_____	_____
15. there	_____	_____
16. Out	_____	_____
17. we	_____	_____
18. have	_____	_____
19. do	_____	_____
20. ran	_____	_____
21. ducks	_____	_____
22. eat	_____	_____
23. Two	_____	_____
24. was	_____	_____
25. your	_____	_____

Daniel's

Word Recognition List

Name _____ Date _____

Stimulus	Flash	Untimed
1. stop	_____	_____
2. looks	_____	_____
3. long	_____	_____
4. us	_____	_____
5. new	_____	_____
6. Take	_____	_____
7. stay	_____	_____
8. them	_____	_____
9. know	_____	_____
10. His	_____	_____
11. green	_____	_____
12. black	_____	_____
13. fast	_____	_____
14. who	_____	_____
15. That	_____	_____
16. he	_____	_____
17. looked	_____	_____
18. so	_____	_____
19. him	_____	_____
20. Let	_____	_____
21. surprise	_____	_____
22. too	_____	_____
23. just	_____	_____
24. as	_____	_____
25. Something	_____	_____

Daniel's
Word Recognition List

Name _____ Date _____

Stimulus 2 - A	Flash	Untimed
1. Jack	_____	_____
2. woods	_____	_____
3. told	_____	_____
4. glad	_____	_____
5. eating	_____	_____
6. tired	_____	_____
7. started	_____	_____
8. surprised	_____	_____
9. would	_____	_____
10. gray	_____	_____
11. dark	_____	_____
12. kinds	_____	_____
13. been	_____	_____
14. its	_____	_____
15. everything	_____	_____
16. apple	_____	_____
17. never	_____	_____
18. once	_____	_____
19. hill	_____	_____
20. shall	_____	_____
21. keep	_____	_____
22. four	_____	_____
23. hide	_____	_____
24. Please	_____	_____
25. climb	_____	_____

Daniel's
Word Recognition List

Name _____ Date _____

Stimulus 3 - A	Flash	Untimed
1. finest	_____	_____
2. falling	_____	_____
3. chased	_____	_____
4. Which	_____	_____
5. love	_____	_____
6. stronger	_____	_____
7. third	_____	_____
8. hundreds	_____	_____
9. wished	_____	_____
10. hunted	_____	_____
11. tie	_____	_____
12. clothes	_____	_____
13. Saturday	_____	_____
14. Billy	_____	_____
15. hiding	_____	_____
16. stones	_____	_____
17. quick	_____	_____
18. branch	_____	_____
19. lovely	_____	_____
20. picture	_____	_____
21. bowed	_____	_____
22. ring	_____	_____
23. dig	_____	_____
24. owned	_____	_____
25. supper	_____	_____

Daniel's

Word Recognition List

Name _____ Date _____

Stimulus 4 - A	Flash	Untimed
1. dozen	_____	_____
2. whirled	_____	_____
3. China	_____	_____
4. States	_____	_____
5. bottle	_____	_____
6. exclaimed	_____	_____
7. reason	_____	_____
8. market	_____	_____
9. needles	_____	_____
10. scrambled	_____	_____
11. meant	_____	_____
12. trousers	_____	_____
13. scolding	_____	_____
14. raised	_____	_____
15. furry	_____	_____
16. lonesome	_____	_____
17. sunshine	_____	_____
18. delight	_____	_____
19. ashamed	_____	_____
20. dreadful	_____	_____
21. breaking	_____	_____
22. valley	_____	_____
23. highway	_____	_____
24. porch	_____	_____
25. carefully	_____	_____

Daniel's
Word Recognition List

Name _____ Date _____

Stimulus 5 - A	Flash	Untimed
1. easily	_____	_____
2. curtain	_____	_____
3. business	_____	_____
4. taught	_____	_____
5. queen	_____	_____
6. forth	_____	_____
7. sunrise	_____	_____
8. quarter	_____	_____
9. dream	_____	_____
10. February	_____	_____
11. distance	_____	_____
12. death	_____	_____
13. soup	_____	_____
14. frame	_____	_____
15. ragged	_____	_____
16. bitterly	_____	_____
17. rose	_____	_____
18. gallop	_____	_____
19. breathlessly	_____	_____
20. huge	_____	_____
21. struck	_____	_____
22. shake	_____	_____
23. upset	_____	_____
24. crowding	_____	_____
25. machinery	_____	_____

NORTHWEST EDUCATIONAL CENTER

FORM R-231: Comparison of Pretest and Posttest Data (Revised 1-1-71)

1. _____ _____
(name of pupil) (case number)

2. _____ _____
(school corporation) (building now enrolled)

3. Time lapse in months:

Date of posttest	
Date of pretest	
Difference in months	

4. Achievement Ratio: academic year and month

	pretest	posttest
Assigned grade		
Achievement (highest I level)		

Retention during this time? yes__ no__

5. Present teacher _____

6. Check type of reading instruction:
In regular classroom ___ Out-of-class remedial small group ___
Special tutor ___ summer school ___.

7. Data Summary. (split the horizontal row when using Edward's and Daniel's)

LEVELS	Pretest: Word Recognition flash	Pretest: Word Recognition untimed	Pretest: Word Recognition % context	Pretest: ave. comp.	Posttest: Word Recognition flash	Posttest: Word Recognition untimed	Posttest: Word Recognition % context	Posttest: ave. comp.	+ - Results: 1 S.V.	2 W.A.	3 A.C.
I-1											
I											
I+1											
I+2											
I+3											
I+4											
I+5											
and higher											
Total gain in S.V.										X	X
Total gain in W.A.									X		X
Total gain in A.C.									X	X	
Sum of Totals									X	X	X
% of Reading Progress									X	X	X

8. Mental ability: (check one)
____ above average
____ average range
____ below average

_____
(signature of Diagnostician)

NORTHWEST MULTI-SERVICE EDUCATIONAL CENTER
P.O. Box 295, Valparaiso, Indiana 46383
Dial 219 - 462-8580

FORM R-230 RETEST DATA (administrative explanation) Revised 1-1-71

To: _____ _____
(person receiving the data) (corporation)

Address: _____ _____ _____ _____
(street) (city) (state) (zip)

I. Explanation: The pupil who is identified below has been re-examined by Reading Diagnosticians from the Northwest Educational Center. The attached data sheet may contain confidential information regarding pupil ability. Copies, (usually two) of the report, are sent to the Superintendent of Schools and Reading Liaison. Additional copies will be issued to other authorized school personnel upon request.

_____ Wayne E. Swihart, Project Director _____
(date)

Public Law 89-10, Title III, serving school corporations, (Public and Non-Public), which are affiliated with the NORTHWEST INDIANA ELEMENTARY AND SECONDARY SCHOOL COOPERATIVE. Grant award ending August 31, 1971.

II. Pupil identification and comparative Test Data:

1. _____ 2. _____ 3. _____
(name of pupil) (school building) (case number)

	Pretest	Posttest(s)	
4. Examination dates - - - - - - - - - - - - - - - - - -	_____	_____	_____
5. Mental Ability _____ (name of test) _____ (IQ)			
6. Assigned grade (enrolled) at time of testing:	_____	_____	_____
7. Word Recognition (Daniel's and/or Edwards):			
a. Sight Vocabulary - - - - - - - - - - - - - - - -	_____	_____	_____
b. Word Analysis Skills - - - - - - - - - - - - - -	_____	_____	_____
8. Informal Reading Inventory Levels:			
a. Independent Reading Level - - - - - - - - - - -	_____	_____	_____
b. Basic Instructional Level - - - - - - - - - - -	_____	_____	_____
c. Frustration Reading Level - - - - - - - - - - -	_____	_____	_____
d. Adequate Word Recognition (context) - - - - - -	_____	_____	_____
e. Adequate Reading Comprehension - - - - - - - -	_____	_____	_____